



Ø BEAT

JANUARY 1985



COLORADO SPRINGS,
COLORADO

Frank Drake KL7IPV
4964 Harvest Lane
Colorado Springs, CO 80917

FIRST CLASS MAIL



Ø BEAT



P.P.R.A.A. DIRECTORS

PRESIDENT	Mike Stansberry KØTER 2630 E. Uintah 80909	636-1290
V. PRESIDENT	Frank Drake KL7IPV 4964 Harvest Rd. 80917	597-2406
SECRETARY	Mark Richardson NØEPF 24 N. Union 80909	473-1799
TREASURER	Les Borst KCØNC 2542 E. Bijou 80909	634-3995
Board Member	* Oak Stockton KØROL 2023 Essex Ln. 80909	596-1395
Board Member	* Mark Strang WB9NFE 314 W. Nichols Ct. 80905	471-3397
Board Member	Al Vrooman NØCMW 1341 Diana Ln. 80909	473-1660
Board Member	* Bob Poirier KØDJ 1884 Pepperwood 80910	574-0488

ZERO BEAT is published monthly in the interest of the the members of the Pikes Peak Radio Amateur Association Inc., Colorado Springs, Colorado. Permission is given to reprint articles or excerpts provided credit is given. Deadline for submission of articles is the 21st of the month. Classifieds accepted anytime.

The Pikes Peak Radio Amateur Association meets on the second Wednesday of each month at Giuseppe's Depot Restaurant at 10 S. Sierra Madre at 7:30 p.m. All amateurs and interested parties are invited to attend

Editor: Frank Drake KL7IPV, 4964 Harvest Rd. Colorado Springs, CO 80917 597-2406

GENERAL MEETING MINUTES GENERAL MEETING MINUTES GENERAL MEETING MINUTES

The meeting was called to order by the President, Mike Stansberry at 7:32PM at Giuseppe's Depot. There were 21 present for the meeting.

Introductions were made with two new people attending.

Les, KCØNC; mentioned that dues are now due for 1985 and that the dues are payable from Jan.1 to Dec. 31. If paid after the January newsletter is published, then the dues go from Feb. or whichever month the dues are paid. That is, if you pay before an issue goes out; then the whole of that month is due and counts as a full month. See Les if you're is still in a fog. This does NOT apply to current members!!

The Secretary's report was approved as published in the Dec. Zero Beat after some minor corrections. Corrections included that the club property is to sold in a sealed bid process. Also included that the board meeting was adjourned instead of " cancelled ".

The treasurer's report was given by Les. November ended with \$1,380.97 in the treasury. The balance at the Dec. meet after expenditures and added income was: \$1,485.34. The Dec. newsletter bill of \$147.50 still needs to be paid.

Committee Reports followed:

RFI Comm.:KC7QJ. Absent

Swapfest Comm.:KL7IPV - Swapfest to be on March 31st, 1985. At this time it will be at the Nat'l Guard Armory unless someone can come up with a larger site of at least 15,000 square feet.

Trailer Comm.:KØTER - Trailer alive and well at Mike's house. Any more refurbishing should wait until spring now.

Pike's Peak Hill Climb: WØMCT - Nothing more to announce at this time, any news will be in the Zero Beat. The Pike's Peak group will require that all volunteers attend safety 2 meetings prior to being allowed on the hill during the race.

PR: WB9NFE - Absent

Education : KL7IPV - Frank has numerous requests and will start Novice classes in January and if enough are interested; will continue through the General and Advance class. Names will be taken at the Jaunuary meeting.

By-laws Comm.: KCØNC - Nothing had transpired since last meeting.

CCARC : KØROL - Oak gave a short history of the club's involvement in the CCARC. The CCARC meets three times annually. Oak stated the prime purpose of the CCARC. They are: to release PR to others states concerning the clubs in Colorado. Putting on ARRL conventions and coordinating dates. Publishes new Colorado Amateur Directory. Works with project such as: ARES, Search & Rescue, etc.

Next board to be held at Oak's house on Monday, Dec. 17th. (CONT. ON PAGE 5)

COMPUTER CORNER

From the desk of Ye Olde Editor:

ERROR ERROR ERROR ERROR ERROR ERROR ERROR ERROR ERROR ERROR
In last month's newsletter, I made a horrendous goof. At the November meeting it was not Frank Craw, WØHWH; but it was Frank FREILER, WBØPAJ who spoke about his experiences on the Johnny Carson Show! Mea Culpa. I have sentenced myself to make 100 revolutions on a spinning disc. (And, boy, that do get dizzying!) The famous PPRAA Fox Hunt was held on Dec. 16th. Those in attendance were: Frank, KL7IPV and ----. Yup, I was the only one to show and it took only 23 minutes to find that thing. Hopefully, next month more'll show up. I'm sure that we were "Christmassed" this time. The mall was a ZOO! Since I won the prize that I awarded, it will be next month's prize again. It is a copy of the ARRL Antenna Handbook in hardbound form. Surely, someone out there can use it. See you next month about the 13th when yours truly will be the wiley Fox. I am now receiving the World Radio Newspaper and you'll find articles from that in this and future newsletters. I still would like others to submit computer programs for publication here. So far, its been a drought! Don't be bashful, if it'll make you feel better, I won't tell the world who submits 'em. Lets hear it, huh? This month I have no idea what you'll get for a program, since this is only the 16th and I haven't started on the program yet. I still would like you to tell me what you'd like to see for a program so I can try to build one. Then we all could add our own input to get it to do what each of us would like to see in a program. Programming by Committee. Call me, let's see what that kind of thing gets us. I have had about five new people ask for a novice class and have heard that others are also interested. So, based upon that, I will start a novice class in January. I will try to continue the classes past the novice portion and into the general portion for those who want to try to upgrade. That way we can do it while the material is still fresh in your mind. So, then, it will be at my house and all that will be required is that each of those interested purchase a ARRL "Tune In The World" book. You can get them at Centennial Elec. or maybe any bookstore. Contact me at the next meeting which will be on January 9th. at Giuseppe's Depot. at #10 S. Sierra St. The fun and frivolity starts at 7:30PM when Ed Means, WØVO will be our guest speaker. Ed will talk about AMSAT and OSCAR. Ed knows his stuff and should be very interesting. See you all there. I've had lots of interest in various modes of radio communications, but, alas, I haven't had any one of those "GURUs" jump up with input concerning AMTOR, RTTY, PACKET, or any of those other things that I had hoped I would get. You guys that are on those different modes would really be a help if you could come up with an article or something to show everyone else what's happening locally. Speaking of which, the SWAPFEST will be on March 31st. That's Palm Sunday this year, so get ready for that. The club has committed itself to working on the Pikes Peak Hill Climb on July 13th. I will be running a separate column on that as we get closer to the date. The column will be to keep you all informed as it progresses. The people in charge of the event have really their act together, so we need to give them all of our support and HELP. Let's show them what the PPRAA is really capable of. This may our chance to show off ATV, Packet Radio, and RTTY. If you have any ideas, or just want to be part of the event, contact Doc, WØMCT; or Charlie, KCØTI. They will be tickled pink to hear from you.

That's it for this month. 73 'til next time. Frank - KL7IPV.....

RAMBLINGS

FROM THE WORLD OF AMATEUR RADIO
From World Radio News; January, 1985.

"DEADLINE EXTENDED"

The deadlines for comments and reply comments on PRB-1 have been extended. The deadline for comments is now 24 December, and 25 January for reply comments. Comments should refer to #PRB-1, and should be sent to: Secretary, FCC, 1919 M St. NW, Washington, D.C. 20554.

PRB-1 was filed by the ARRL on 16 July, and requests the Commission to exercise federal preemptive authority over state and local zoning regulations which affect transmitters and antennas used by Amateur Radio Operators.

"NEW LICENSES"

The number of new licenses and upgrades issued by the FCC during the twelve months prior to October 1984 were:

NEW: Novice 17,392; Technician 730; General 476; Advanced 161; Extra 41; Total new licenses 18,800.

UPGRADES: Novice to Technician 6,724; to General 1,876; to Advanced 213; to Extra 16; Total novice upgrades 8,829. Technician to General 1,917; to Advanced 581; to Extra 6; Total Technician upgrades 2,504. General to Advanced 3,120; to Extra 241; Total General upgrades 3,361. Advanced to Extra 1,490. Total upgrades 16,184.

"CONTROL OP"

Are you sure which call sign should be used when some other licensee is operating your equipment? In "Washington Mailbox", QST, August 1984, they answer a similar question ending with the statement, "Of course the control operator may simply use his or her own call sign at your shack to ID the operations."

Responding to challenges to that statement by several amateurs, the October 25th ARRL Letter reports the views of an FCC official with whom the quoted statement was checked: "Now that transceivers can be passed from hand to hand, the interpretation he has been using for some time is based on physical control being the important criterion. Thus, (he) believes that the call sign of the person having physical control of the station equipment may always be used."

"The birth & death of the QSL" by Marv Mahre, W0MGI

We've all seen how crazes hit the country - hula hoops, skateboards, etc. - but that's nothing new. Its always been that way.

Have you ever wondered why everybody seems to have a collection of family postcards? Its because in our father's or grandfather's day, the national craze was exchanging and collecting picture postcards. In the decade from 1906 to 1916, ONE BILLION postcards went through the U.S. mails each year. So, its little wonder that a goodly number of them were stashed away in attics.

That same period (1906 - 1916) also just happens to be the same time amateur radio began to flourish. With everybody thinking up every possible variation of a greeting card, a new one was born...the QSL.

Now, a couple of generations later, the boom in picture postcards is long gone, survived only by Christmas greeting cards and our ham QSL.

I posted my first QSL card for only a penny, but recent quantum jumps in postage rates have raised the cost to 15 cents, making Johnny Ham think twice before confirming routine contacts. Time was when many amateurs literally covered the walls of their shacks with QSL cards; but no more...real wallpaper is far less expensive.

GEN'L MINUTES CONT.

OLD BUSINESS:

Senior Citizen's Project: NØCMW - Architect has said that the proposed building will not have sufficient room to allow for an addition of an amateur radio station.

ANNOUNCEMENTS:

On Dec. 25th, there will be an experiment that will be visible for all of the Colorado Springs residents (weather permitting) to see. It will be a manmade aurora using a berium charge that was launched two months ago. It will be visible in the southern sky at 5:15AM. Binoculars will enhance the view. It will take about five minutes to form and should last for our viewing for about fifteen minutes more.

World Radio News should be received by the Zero Beat editor prior to the January issue and should be excerpted in the January Zero Beat.

The door prize drawing was held after return from break and then the - PROGRAM:

The program was " Homebrew Night " Four entries were introduced to the members. They were: A left or right handed keyer entered by Jake, NØCYR. An electronic water thermometer entered by Larry, working on Novice. A RTTY Computer Interface entered by Frank, KL7IPV. A Station Central Power Supply entered by Dick, WØHDS (Ed. note: Correct me if that's wrong - please) After the balloting and, minor confusion, the winners were: 1st went to Jake (\$40), 2nd went to Frank (\$30), and 3rd went to Larry (\$20).

The meeting was adjourned by Mike at 9:03PM. Next meeting to be held at Giuseppe's on January 9th, at 7:30PM.

Minutes taken in NØEPF's absence by:
Steve (new call) KAØTRW (Congratulations!)

" LOOKING BACK AT THE PPRAA "

THIRTY FIVE YEARS AGO - JAN, 1951
The Zero Beat reported that the El Paso Radio Club met at the Naval Reserve Trng Bldg. Dick Vertefeuille met with Hank Bushnell and drafted a constitution for the club, as Dick read each of the articles, they were discussed & approved. The club adopted the new constitution as it was submitted by a unanimous vote. A discussion of on code: it was decided that the top 50Kc was not used much so a frequency of 7275Kc was decided on. Members to use very low power.

TEN YEARS AGO - JAN. 1975
The Zero Beat reported that the President, Mike Stansberry (*no- that's not a misprint!) had made arrangements for a tour of the Ampex Corp. Mike's call was then WBØHCK. Pete Demario was then the Chairman of the Pikes Peak FM Committee. There were three FM repeaters in the area: 146.16/76, /97, and 19/79 going to the Black Forest. Rosie, WAØMNL, was the club treasurer. 39 were at the PPRAA Christmas Party.

**Centennial ★ ★ RCA
ELECTRONICS**

2324 East Bijou, Colorado Springs, CO 80909
PHONE: (303) 633-4666

COLUMBIA
ELECTRONIC CABLES

Weller Xcelite®

SPRAGUE

GC
ELECTRONICS

SIMPSON METERS

Chemtronics Inc.,



SOAR

VIZ

Mfg. Co.

TEST INSTRUMENTS

**TECH
SPRAY**

ARRL

Largest Supply of Electronic Parts
In Southern Colorado

Howard W. Sams



TAB BOOKS

```

COMPUTER PROGRAM FOR DETERMINING AZIMUTH & ELEVATION OF CELESTIAL BODIES
10 REM: * * * MOONTRACK .BAS * * *
20 CLS:PRINT"PROGRAM TO CALCULATE AZ-EL DATA FOR THE SUN OR MOON
30 PRINT:PRINT"PROGRAM BY J. HALL,K1TD,ARRL Hq., Rev 1.1, June 1983":print
40 PRINT"This program may be reproduced without prior permission"
50 PRINT"provided the ARRL Handbook is credited.":PRINT
60 B$="###.##":I=57.2958:K=.01657
70 PRINT"Enter negative numbers for southerly latitudes"
80 PRINT"Enter negative numbers for easterly longitudes"
90 PRINT:INPUT"Your latitude (degrees & decimal)";A
100 PRINT:INPUT"your longitude (degrees & decimal)";L1
110 D=SIN(A/I):F=COS(A/I)
120 INPUT" UTC date (no comma, please)";A$
130 INPUT" Data for which, SUN or MOON";C$:PRINT
140 PRINT A$" GHA of ";C$;"at 0000 UTC":INPUT" (degrees & decimal)";L2
150 PRINT A$" declination at 0000 UTC":INPUT" (degrees & decimal)";B1
160 PRINT A$" GHA at 2400 UTC":INPUT" (degrees & decimal)";L3
170 PRINT A$" declination at 2400 UTC":INPUT" (degrees & decimal)";B2
180 G1=(L3+360-L2)/24
190 B1=(B2-B1)/24
200 J%=0:GOSUB 330
210 FOR A%=0 to 48: G=SIN(B1/I):L=L2-L1
220 E=D*G+F*COS(B1/I)*COS(L/I):C=(G-D*E)/F:J=E
230 IF E 1 THEN E=1.5708:GOTO 250
240 IF E 1 THEN E=-1.5708 ELSE E=ATN(E/SQR(ABS(1-E*E)))
250 C=C/COS(E):IF C =1 THEN C=0: GOTO 270
260 IF C =1 THEN C=180 ELSE C=I*(-ATN(C/SQR(ABS(1-C*C)))+1.5708)
270 IF LEFT$(C$,1)="M" OR LEFT$(C$,1)="m" THEN GOSUB 430
280 E=I*E:IF J%=8 AND E =0 THEN GOSUB 410
290 IF E =0 THEN GOSUB 360
300 B1=B1-B2/2:L2=L2+G1/2:IF L2 360 THEN L2=L2-360
310 NEXT:PRINT:PRINT" Data for for ";A$;" is completed for the ";C$
320 INPUT" To continue, press enter";J%:CLS:PRINT"Next ";:GOTO 120
330 CLS:PRINT"Data for the ";C$;"from ";A$;"deg.lat., ";L1;"deg. long."
340 PRINT:" for ";A$:PRINT
350 PRINT:"Time, UTC","Azimuth","Elevation":PRINT:PRINT
360 IF INT(A%/2)=A%/2 THEN D$=STR$(50*A%) ELSE D$=STR$(50*A%-20)
370 D$=RIGHT(D$,LEN(D$)-1)
380 IF LEN(D$) 4 THEN D$="0"+D$: GOTO 380
390 PRINT D$:IF SIN(L/I) =0 THEN PRINT USING B$;C;ELSE PRINT USING B$;360-C;
400 PRINT TAB(32);:PRINT USING B$;E:J%=J%+1:RETURN
410 PRINT:INPUT" For more data press enter";J%
420 J%=0: GOSUB ##): RETURN
430 J=(J-K)/COS(E):E=ATN(J):RETURN
440 REM NOTE: % = INTEGER

```

COMING NEXT MONTH:

Review of Yaesu FT-757-GX by Al, AL7H
 More from Gateway & World Radio News
 President's Views & Comments
 Profiles of new members or novices
 Another computer program
 Odd'N'Ends & other stuff!

More NEW MEMBERS:

Alan Higbie - AL7H
 P.O.Box 1600, C.S. 80934
 Ph# 471-0192
 "Mac" MacLeod - WBØYNS
 4135 Thoreau Dr., C.S. 80916
 Ph# unlisted

```


1 QP = PEEK (49240!); REM TURN XMTR OFF
5 REM: WRITTEN BY ROBERT SWIRSKY
7 REM: FOR APPLE II COMPUTERS
10 DIM CODE$(128)
20 HOME
30 INPUT "MESSAGE--- ";M$
40 IF M$="" THEN M$= ""
50 HOME
55 INPUT "SPEED";S:IF S*3=255 THEN 50
60 RESTORE
70 POKE 768,50
75 REM : SIDETONE
80 POKE 770,173:POKE 771,48:POKE 772,192:POKE 773,136:POKE 774,2
82 POKE 775,5: POKE 776,206: POKE 777,1: POKE 778,3
84 POKE 779,240:POKE 780,9:POKE 781,202
90 POKE 782,208:POKE 783,245:POKE 784,174:POKE 785,0
92 POKE 786,3:POKE 787,76:POKE 788,2: POKE 789,3:
94 POKE 790,96:POKE 791,0: POKE 792,0
100 REM
110 GOSUB 310
120 PRINT CHR$(ESCAPE); CHR$(CURSOR); CHR$(HOME)
130 GET R$
140 IF ASC(R$) 3 THEN GOSUB 370
150 IF ASC(R4)=25 THEN 50
160 IF ASC(R$)=25 THEN 20
170 D = ASC(R$)
180 GOSUB 200
190 GOTO 130
200 FOR X=1 TO LEN (CODE$(D))
210 G$=MID$ (CODE$(D),X,1)
220 IF VAL(G$) = 0 THEN GOTO 350
230 POKE 769,(S*(VAL(G$)))
235 X9 = PEEK (49249!)
240 CALL 770
245 X9=PEEK (49240!)
250 FOR X1 = 1 TO 3: NEXT
260 NEXT
270 PRINT R$;
280 FOR X1 = 1 TO S*1.3:NEXT X1
290 RETURN
300 END
310 READ F,F$
320 IF F =-1 THEN RETURN
330 LET CODE$(F)=F$
340 GOTO 320
345 REM : SPACE
350 FOR X1 = 1 TO S*1.7:NEXT
360 GOTO 260
370 FOR H1 = 1 TO LEN(M$)
380 LET R$=MID$(M$,H1,1)
390 D=ASC(R$)
400 GOSUB 200
410 NEXT H1
420 R$=""
430 RETURN
1000 DATA 49,133330
1010 DATA 50,113330
1020 DATA 51,111330

```

If it's CW, it's communications.

832-	ALL MAJOR BRANDS	832-
1111	SALES SERVICE	1111
8-5:30 Mon.-Fri. 8:30-1 Sat.		

Mike W6DXE Bob K0LAF
John WA0ADV



CW ELECTRONIC SALES CO.
800 Lincoln St. Denver, CO 80203

1030 DATA 52,111130
 1040 DATA 53,11111
 1050 DATA 54,31111
 1060 DATA 55,33111
 1070 DATA 56,33311
 1080 DATA 57,33331
 1090 DATA 48,33333
 1100 DATA 32,00
 1110 DATA 65,130
 1120 DATA 66,31110
 1130 DATA 67,31310
 1140 DATA 68,3110
 1150 DATA 69,10
 1160 DATA 70,11310
 1170 DATA 71,33100
 1180 DATA 72,11110
 1185 DATA 47,311310
 1190 DATA 73,110
 1200 DATA 74,13330
 1210 DATA 75,31300
 1220 DATA 76,13110
 1230 DATA 77,03300
 1240 DATA 78,310
 1250 DATA 79,03330
 1260 DATA 80,13310
 1270 DATA 81,33130
 1280 DATA 82,1310
 1290 DATA 83,11100
 1300 DATA 84,00300
 1310 DATA 85,11300
 1320 DATA 86,11130
 1330 DATA 87,13300
 1340 DATA 88,31130
 1350 DATA 89,31330
 1360 DATA 90,33110
 1370 DATA 46,131313
 1380 DATA 27,11111111
 1390 DATA 13,31113
 1400 DATA 44,331133
 1410 DATA 38,10111
 1420 DATA 45,31113
 1430 DATA 58,3131003313
 1440 DATA 63,113311
 1450 DATA 18,13131
 1460 DATA -1,-1

**COLORADO SPRINGS
WALKER ELECTRONICS**

2838 N. Prospect
Colorado Springs, Colorado 80907
(303) 636-1661

**WHOLESALE DISTRIBUTOR
HAM & EXPERIMENTER ITEMS**

ECG Semiconductors • General Electric MOV's

Belden Wire & Cable • ARRL Publications

GC Electronics • Fluke Meters

Unger • Walter/Xcelite Tools

LMB • Unibox • Waldom/Molex

SAMS Computer Facts

*Let Us Help You With
Your Electronic Needs*

HIS PROGRAM IS TO TEST YOUR ABILITY WITH A KEY. IT IS TO
 EE HOW YOUR SENDING IS RECEIVED ON THE OTHER END. IF YOU
 END 'EI' FOR AND 'S' IT WILL BE 'EI' ON THE SCREEN.
 IGNORE THE '!' SIGN IN THE PEEK STATEMENTS.
 THOUGH THE ARTICLE WAS NOT VERY CLEAR, IT SEEMS THAT THIS
 PROGRAM UTILIZES A CODE KEY INPUT AT THE JOYSTICK INPUT.
 SINCE I DON'T OWN AN APPLE OR A COMPUTER WITH A JOYSTICK
 I COULDN'T TEST THE PROGRAM. GOOD LUCK!

RE M I N D E R
LYS CAREY KOPGM
(12/84)

HAD A FRIENDLY TALK WITH ONE OF THE FCC ENGINEERS RECENTLY AND IT WAS BROUGHT OUT THAT WE SHOULD PASS ALONG A FRIENDLY REMINDER TO ALL REPEATER OWNERS AND OPERATORS THAT, 1. A REPEATER IS REQUIRED TO HAVE A CONTROL OTHER THAN THE INPUT FREQUENCY. 2. IF THAT CONTROL IS VIA RF IT MUST BE ABOVE 220.5 MHZ. IT COULD ALSO BE BY LAND LINE OR MANUAL CONTROL. 3. THE ORIGINAL LICENSE MUST BE CONSPICUOUSLY POSTED ON THE UNIT. 4. THE NAME AND PHONE NUMBER OF THE CONTROL OPERATOR MUST ALSO BE POSTED. (PREFERABLY MORE THAN ONE) THEY ARE NOT TRYING TO HANG ANYONE, BUT WHAT IF THE FOLLOWING DID HAPPEN. (AND MAY HAVE) LETS SAY A REPEATER DEVELOPS A SPUR ON A NON-HAM FREQUENCY, FIRE, POLICE OR WHATEVER, AND CALLS THE FCC. THE FCC THEN GOES TO THE SOURCE NOT KNOWING WHERE THE MIX IS OR IS COMING FROM, THEN FINDS THAT IT IS A HAM REPEATER WITH NO IDENTIFICATION. IF THE INTERFERENCE WERE TO AIRCRAFT OR POLICE OR FBI, WHAT WOULD YOU EXPECT THE FCC TO DO? HAMS ARE NOTED FOR POLICING THEMSELVES, LETS DON'T SLIP NOW.

OTHER NOTES. BY THE TIME YOU GET THIS THE DEC. 24 DEADLINE FOR PRB1 (FEDERAL PREEMPTION) WILL HAVE PASSED, HOPE ALL DID TURN IN A COMMENT TO THE FCC.

THE 1.9 TO 2 MHZ PART OF 160 METERS IS STILL IN JEOPARDY, PRESSURE IS SEVERE FROM THE RADIO LOCATION SERVICES. READ THE GENERAL MANAGERS REPORT IN QST. IF BROADCAST EXPANDS FROM 1.6 TO 1.7, WHERE ARE THE RECEIVERS THAT ARE GOING TO LISTEN TO IT? WE THINK THE EXPANSION IS PREMATURE.

ARRL HQ IS GOING THRU AN INTERNAL REALIGNMENT SO YOU MAY BE SOON SEEING NAMES IN CHARGE OF AREAS THAT YOU ARE NOT USED TO. WHY? AN ATTEMPT AT EFFICIENCY.

JUST A REMINDER, THE NEXT ARRL BOARD MEETING IS JAN. 24 & 25, IF YOU HAVE ANY COMMENTS FOR CHANGES OR PROGRAMS, PLEASE LET ME KNOW BEFORE THEN.

ODD ' N ' ENDS

WELCOME TO THESE NEW MEMBERS
John W. Poynor - KAØTRY
2624 E. Yampa, C.S. 80909
OFC PH# - 578-6487

WATCH FOR THE NEW COLUMN -
IT WILL BE - PRESIDENT'S
VIEWS. Mike has some good
background and should make
interesting reading!

REMINDER: Whether or not you
are a PPRAA member, we would
like to see you at our Satur-
day morning breakfasts at the
All The King's Men restaurant
on N. Union Blvd. Its across
from East High School. Come
join us - its a good time to
acquaint yourself with the
other hams in the area. We
look forward to seeing you
there.

Ye Olde Editor is STILL in need
of input from many of you who
are into AMTOR, RTTY, Packet,
etc. I also REALLY need some
computer programs for the news-
letter. My well has gotten dry
already. HELP! HELP! anyone.

MINUTES OF DEC. 17th BOARD MEETING
There were four members present at
Oak's house for the board meeting.
Since five are needed to form a quor-
um, the scheduled meeting was not
held. The next board meeting will be
on January 14th, at Oak's house.

=====

USE PLAIN STAMPS" from the Tri-County Amateurs, Dixon, IL.

Do you sometimes have the feeling you don't always receive your QSL's? Here is a suggestion I would like to offer.

Don't use fancy or showy stamps on outgoing mail. Some amateurs feel that by doing so, the person who receives your QSL will be more inclined to reciprocate. In theory, this may be true. In actual practice, postal clerks in some countries (notably Argentina & Brazil) have been known to intercept such letters before they are delivered and either keep the stamps for their own collection or sell them to dealers. The QSL cards are thrown away!

It is for this reason that Vatican City, for instance, known for its beautiful stamps, usually has a plain-looking postage meter impression affixed to especially important mail going to certain nations.

=====

AMSAT annual meeting - by Dr. Norman L Chalfin, K6PGX

Ed.note: The annual meeting was held at the AMFAC Hotel in Los Angeles on Nov. 10th, 1984. Vern Riportella, WAZLQQ, presented a paper on the future of AMSAT's spacecraft.)

An ambitious proposal has been put forth to launch six geosynchronous satellites into orbits about the earth.

There will be three pairs positioned at 120 degree points about the equator. One pair will be over Europe, probably east of the Prime Meridian. The second pair will be over the Equador, and the third over a point between Japan and Australia. Each of the pairs will be redundant and the second of the pair will take over in the event of a failure of one of the pair. Each satellite will be equipped with channelized transponders in one of the amateur space bands with access by tone pad signals.

It is projected that amateurs anywhere in the world will be able to access the transponders and through a linking system make contact with any other amateurs wherever they are situated. The frequencies discussed were 13cm.

What advantage the *proposed system would have over the existing satellite system is expressed in the fact that all you would need is an antenna fixed in place and directed at the satellite. No rotors, no looking up of tables to know where to point, and no need to calculate orbital parameters. Once your station is set up, it stays.

=====

YOU KNEW IT ALL ALONG!"

Small vise-grip pliers make an excellent temporary heatsink for flat pack voltage regulators when trouble shooting/repairing equipment out of enclosure. by MICKEY MCDANIEL, W6FGE

SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE	
searcat Scanner Mod. 300 - \$349.00	* ICOM ICOT AT 2m FM w/batt. pack and
Commodore C-64 Computer - \$188.00	* charger - \$305.00
Commodore Color Monitor , Mod 1702 - \$240.00	* Commodore Disk Drive, Mod. 1541 - \$239.00
Commodore Printer, Mod 801 - \$209.00	* Commodore C-64 Ref. Guide - \$20.00
W RTTY ASCII Interface AEA CPI and MBATOT Software - \$290.00	* GUSTDORF Computer table - \$256.00
Following equipment sold as package: Hustler Vert, Antenna - Mod 4BTV; 2 meter antenna; Collins S-Line - five units incl. 3ØL1 Amp (1KW input); spare tubes - \$510.00	* Manuals & boxes avail. for all!

For more info or to see and discuss, call Mrs. Ruth White at 597-4805



THE AMERICAN RADIO RELAY LEAGUE, INC.

SECTION MANAGER

William "Bill" Sheffield, KQØJ
1444 Roslyn Street
Denver, Colorado 80220
(303) 355-2488 355-6400

QST
OFFICIAL JOURNAL

SCHEDULE OF VE TESTS FOR COLORADO

DATE	LOCATION & OR SPONSER	CONTACT
Dec. 15, 1984	Pueblo ARC, Pueblo, Colorado (this club is planning future tests possibly every mo.)	WBØYES
Jan 19, 1985	Arkansas Valley ARC Otero College, La Junta	WØZCX
Jan 21, 1985	Boulder ARC, Boulder, Colorado (this test may be full as the facility is limited in size)	WBØZID
Feb 14, 1985	ARA Ham Classes, Aurora, Colo	KQØJ
March, 1985	ARA Swap Meet, Aurora, Colo	WØIJR
April, 1985	(not firm on club or group)	
May 9, 1985	ARA Ham Classes, Aurora, Colorado	KQØJ
June, 1985	Boulder ARC, Boulder, Colorado	WBØZID

Candidates for tests should fill out an FCC 610 form and attach a check or money order for \$4.00 payable to "ARRL/VEC". The 610 and fee should be sent to the CONTACT person at least 30 days before a scheduled test.

Any club, group or individual VE Team who is scheduling a test session in the state of Colorado, please let either myself or the Division Director know, as we are working to schedule a test somewhere in the state at least once a month, so that the amateurs in Colorado will have the opportunity to have a full range of testing available.

William "Bill" Sheffield, KQØJ
Section Manager, Colorado

SINCE 1914 - OF, BY AND FOR THE RADIO AMATEUR

MILEY'S RADIO

Jess KØTAA 719 W. 7th St. Florence, Colorado 81226 784-3040
Hours 8 to 6 Tuesday through Friday — Saturdays 8 to 12 — Evening Hours 7:30 to 9 (Call Ahead)
Closed February 3, 4, and 5 for Littlefield, Texas Hamfest

NEW EQUIPMENT IN STOCK

Kenwood TS 930S Sale \$1380 w/auto tuner \$1545.
Kenwood TS 430S - 1 only \$689.
PS 430 Power Supply \$134.
Kenwood AT250 auto antenna tuner for 430S \$290.
Kenwood TS 830S \$779.
Icom 730 \$599.
Icom 745 \$765.
Yaesu FT 757GX - 2 only - going up to \$799 next order \$735.
New "Amp Supply" LA 1000NT 160-15 meter 1200W PEP-600 DC
QSK, no tune up, drives with 100W-list \$529 - SALE \$475.
Kenwood 4000A 2m & 440 FM Xcvr List \$699 Sale \$525.
Same as above w/ voice synthesizer \$560.
Kenwood TR-7950 45W List \$459 - Sale \$359.
Kenwood 7930 \$314.
Kenwood TR 2600A New HT-Overstock Special \$299.
New Kenwood TH21AT shirt-pocket 2 mtr. HT-1w & low power \$199.
Kenwood TR 3500 440 MHz HT-2 only \$265.
Santec 142 2M HT-Best HT on the Market \$239 w/STB BC desk chgr. \$259.
New Santec LS 202A 2 mtr HT, FM/USB/LSB-5/2.5 watts \$249.
Santec 442 440 HT \$279.
Complete line of Tokyo High Power amps & tuners at lowest prices.
Special—Tokyo HI Power HC 2000 2 KW tuner/watts/swr 160-10 meters
with everything List \$399 Sale \$275.
Icom 2AT HT Reg. \$269 Now \$199.
Icom 02AT \$305.
Icom 4AT \$235.
Icom 04AT \$325.
Icom 27A \$314/Icom 27H \$384.
Vocomm Power Rocket for IC 2AT-chgr/amp \$150.
Mirage Amps - Low Prices
Azden PCS 4000 \$269.
New KDK 2033 mini 25W w/TTM & LCD display-3 only \$265.
New Yaesu FT 209RH 5 watt FM HT \$299.
Astron PS — ALL AMPS — Low Prices
Welz test meters in stock
Kantronics interface for VIC 20 and others \$125.
Kantronics Hamsoft for VIC 20 \$45.
Kantronic Hamtext for VIC/Com 64 \$90.
Kantronics Interface II - \$239.
MFJ wet & dry dummy loads — in stock
MFJ Tuners and Keyers — in stock
New MFJ 1224 Interface in stock w/free soft program \$90.
BMC 12" green monitor \$79.
HYTEC EV 2114 14" color monitor for C64 - switches from color to
green or blue \$225.
Commodore 1702 color monitor \$240
Commodore 1541 Disk Drive \$239
Commodore MPS 801 printer \$209.

Combo - C64, MPS 801 printer - Sale \$395
Add 1541 disk drive for total \$595.
Commodore 64 - 3 only \$188.

USED EQUIPMENT

Kenwood TR 2400 like new \$165, w/spkr mike \$180.
Kenwood ST 1 desk charger \$40.
Kenwood 2400 mobile charger/supply \$25.
Wilson 1402SM crystal 2 meter HT \$75.
Wilson Mk. 4 - exc. cond - TTP \$95.
KLM Multi 2700 2 mtr. AC/DC all mode w/Oscar 10 mtr. receiver \$295.
Icom 2AT \$145.
Icom BC 30 desk charger \$45.
Swan SS 200A/16B solid state 200W 80-10 mtr. xcvr. w/p.s. & spkr. \$295.
Yaesu FT 207R - new battery - nice \$135.
Heath Shawnee 6 meter AM w/AC & DC adapters \$50.
Heath HW 7 CW novice xcvr. \$60.
Kenwood TS 520 w/digital RO - mint cond. \$475. w/o digital \$395.
Kenwood AT 200 tuner \$80.
Icom R70 gen. cov. rcvr. w/FL44/A 55B filter (cost \$145) like new \$550.
Icom 701 exc. condition, modified for MARS \$375.
Tempo 2020 ext. VFO \$75.
Hal CT 2200 and keyboard-like new \$450.
National NCX3 200W 80-40-20 w/p.s. & spkr. nice cond. \$225.
Galaxy 5 w/ AC supply and speaker \$195.
Galaxy DC1000 mobile power supply \$25.
Drake TR 4 w/PS & digital \$355.
Drake TR 4 w/p.s. \$325.
Drake TR 4 w/mobile supply only \$295.
Mini Products HQ-1 6-20 mtr. mini quad-up 2 weeks, covenant victim \$125.
Palomar 90A 25 in 300 PEP out amp, 40-10 meters \$150.
RCA volt-ohmmist w/o probes-call Wes KROK on 19/79
Several scopes and FM sig. gens in stock.
Simpson digital VOM-recent factory calib. w/books \$175.
Sony Video Tape Recorder - reel type - player/recorder, camera
with normal & zoom lenses, power supply & nicad packs \$150.
Panasonic 13" 8/W TV-solid state, AC only-nice condition \$50.
Wide selection of amateur antennas-base, mobile,
HF, VHF, UHF at reduced prices
We now stock Hygain, Hustler, Cushcraft and Larsen antennas
We are now distributors for TET antennas
The new ARRL "The FCC Rulebook" — \$3.00
85 U.S. and DX Callbooks - In Stock
85 Handbooks - In Stock
New Repeater Directories In Stock
New ARRL Satellite book \$10.00
New ARRL Name Index Directory
ARRL, Ameco and Bash books and tapes
"We handle anything electronic and love to trade"
Much more used & consignment gear — call for info
01/85

Membership Application PIKES PEAK RADIO AMATEUR ASSOCIATION

Name _____
Address _____
City _____ State _____ Zip _____
Call _____ License Class _____
Are You An ARRL Member? ☐ Yes ☐ No Telephone _____
Full Member \$12.00 ☐
Family Membership \$15.00 ☐
Additional Names _____ Calls _____
Associate Member \$8.00 ☐ (Outside Teller & El Paso Counties.)